

Born in Penne PE, (Italy), 07/04/1967

Married, mother of Luca (25/12/2006)

### **CONTACT DETAILS**

Department of Economics, University of Bologna

Piazza Scaravilli, 2 – 40126 Bologna

Phone: +39 051 2098147

e-mail: maria.ferrante@unibo.it

web: <https://www.unibo.it/sitoweb/maria.ferrante>

### **CURRENT POSITION**

Full Professor, SECS – S/03 Economic Statistics, Department of Economics, University of Bologna, Italy.

Expert of evaluation in the AVA system (ANVUR).

### **EDUCATION**

- July 1991: Laurea (*summa cum laude*) in Statistical and Economic Sciences, University of Bologna.
- November 1995: PhD in Statistics, University of Bologna, doctoral dissertation: “Dealing with attrition in the Bank of Italy survey on Income and Wealth”, supervisor: prof. C. Filippucci.

### **MAIN RESEARCH INTERESTS**

- Estimation of poverty and inequality parameters in small domains.
- Estimation of firms’ economic aggregates and indicators in small domains.
- Analysis of firms’ internationalization choices and fragmentation through multivariate discrete choice models.
- Estimation of the impact of the firms’ choices on productivity through decomposition methods.

### **COORDINATION OF RESEARCH PROJECTS AND ACADEMIC MEMBERSHIPS**

- 2013 – 2019, February : Chair of the Quality Assurance Board of the University of Bologna.
- 2012 - 2015: Delegate for the didactic activities by the Director of the Department of Statistical Sciences, University of Bologna

- 2014 - 2019: Department of Statistical Sciences delegate for the *Polo Penitenziario* project - agreement between Italian Ministry of Justice and University of Bologna to promote and support undergraduate studies among incarcerated people.
- 2011-2014: Scientific coordinator of the Research project on “Estimation of poverty indicators for regions and household typology through small area estimation models”, appointed by the Emilia-Romagna Region.
- 2011 to present: Member of the Permanent Working Group of the Italian Statistical Society "Survey Sampling Methodologies”
- 2010-2013: Member of the Quality Assurance Board of the University of Bologna.
- 2012-2015: President of the Teaching Commission, School of Economics, Management and Statistics, University of Bologna.
- 2010 - 2013: Member of the European Research Project, Seventh Framework programme: “Blue-Enterprise and Trade Statistics (BLUE-ETS)”. Theme 8, Socio-economic Sciences and Humanities (SSH).
- 2007 - 2012: President of the Faculty Teaching Commission, Faculty of Economics, University of Bologna, Forli.
- 2006–2008: Scientific coordinator of the Research project on “Estimation of poverty regional parameters”, appointed by the Emilia-Romagna Region.
- 2004: Member of the Board for a Research Assistant Competition, SECS S/03 – Economic Statistics, University of Padova, Faculty of Economics.
- 2003-2010: Member of the Scientific Board of the Master in City Management, Faculty of Economics (Forli)
- 1999-2000: Coordinator of the research unit of Cosenza (University of Calabria) in the national research project (COFIN-MURST), “Using administrative data in the small area estimation”. National coordinator: prof. Carlo Filippucci (University of Bologna).

## **TEACHING 2018/2019**

Income, Poverty and Inequality Measurement (Corso di Laurea Magistrale in Statistica, Economia e Impresa)

Economic Statistics (Corso di Laurea in Scienze Statistiche)

## **PROFESSIONAL EXPERIENCES**

- November 2001 - November 2011: Associate professor of Economic Statistics, Department of Statistical Sciences, University of Bologna.
- February 1993 - October 1998: Assistant professor, Department of Statistical Sciences, University of Bologna.
- November 1998 - October 2001: Associate professor of Economic Statistics, Department of Statistics and Economics, University of Calabria.

## **VISITING**

- April - July 1993: Visiting student at the Survey Research Centre, Institute of Social Research, University of Michigan, Ann Arbor, Michigan, USA.
- 1998: Research and teaching in the “The TACIS strengthening the labour market and training policy project in Uzbekistan” , Tashkent, Uzbekistan.

## SELECTED PUBLICATIONS

*Orcid of Maria Ferrante:* <https://orcid.org/0000-0001-9813-2420>

Research ranking on VRA UNIBO 2018: top 25% (4 out of 4)

- Ferrante M.R., Freo M., Detecting learning-by-exporting effects on firms' productivity distribution by accounting for heterogeneous macrofactors and panel attrition, «**WORLD ECONOMY**», in corso di stampa, 00, pp. 1 - 19 [articolo]
- Fabrizi E., Ferrante M. R., Trivisano C. (2018), Bayesian small area estimation methods for business survey statistics, «**JOURNAL OF THE ROYAL STATISTICAL SOCIETY – SERIES C**», 67, pp. 861 - 879.
- Ferrante M.R., S. Pacci (2017), Small domain estimation of business statistics using multivariate skew normal models, «**JOURNAL OF THE ROYAL STATISTICAL SOCIETY – SERIES A**», 180, pp.1057-1088.
- Antonietti R., Ferrante M. R., Leoncini R. (2016), Local market size, social capital and outsourcing: evidence from Emilia Romagna, «**SMALL BUSINESS ECONOMICS**», 47, 1, pp. 243-260.
- Ferrante M. R., Freo M., Viviani A. (2016), Learning-by-Exporting and Productivity: Evidences from a Panel of Manufacturing Firms, in **TOPICS IN THEORETICAL AND APPLIED STATISTICS**, *Alleva G., Andrea G. (Eds.)* Springer International Publishing Switzerland.
- Fabrizi E., Ferrante M. R., Trivisano C. (2016), Hierarchical Beta regression models for the estimation of poverty and inequality parameters in small areas. In: **ANALYSIS OF POVERTY DATA BY SMALL AREA METHODS**. Pratesi, M. (Ed.), John Wiley & Sons, pp. 299-314.
- Antonietti R., Ferrante M.R., Leoncini R. (2015), Infrastructure Endowment, Social Capital and Outsourcing: Evidence from Emilia Romagna, Italy, in **INNOVATION AND ENTREPRENEURSHIP IN THE GLOBAL ECONOMY: KNOWLEDGE, TECHNOLOGY AND INTERNATIONALIZATION**, C. Karlsson, U. Grasjo and S. Wixe (Eds.), Edward Elgar, pp. 310-330.
- Fabrizi E., M.R. Ferrante, S. Pacci (2014), A Micro-Econometric Analysis of the Antipoverty Effect of Social Cash Transfers in Italy, «**REVIEW OF INCOME AND WEALTH**», 60, pp. 323 – 348.
- Antonietti R., Ferrante M.R., Leoncini R. (2014), Spatial Agglomeration, Production Technology and the Choice to Make and/or Buy: Empirical Evidence from the Emilia Romagna Machine Tool Industry, «**REGIONAL STUDIES**», 2014, 48, pp. 1 – 284.
- Calia P., Ferrante M.R. (2013), How do firms combine different internationalisation modes? A multivariate probit approach, «**REVIEW OF WORLD ECONOMICS**», 149, pp. 663 – 696.
- Ferrante M.R., Novelli M. (2013), Heterogeneity and Number of Export Destinations of Italian Firms: A Hurdle Negative Binomial Regression Approach, «**GLOBAL ECONOMY JOURNAL**», 13, pp. 391 - 416
- Ferrante M.R., Freo M. (2012), The Total Factor Productivity Gap between Internationalised and Domestic Firms: Net Premium or Heterogeneity Effect?, «**WORLD ECONOMY**», 35 (9), pp. 1186 - 1214.
- Fabrizi E., Ferrante M.R., Pacci S., Trivisano C. (2011), Hierarchical Bayes multivariate estimation of poverty rates based on increasing thresholds for small domains, «**COMPUTATIONAL STATISTICS & DATA ANALYSIS**», 55, pp. 1736 - 1747

- Ferrante M.R., Trivisano C. (2010), Small area estimation of the number of firms' recruits by using multivariate models for count data, «**SURVEY METHODOLOGY**», 36, 2, pp. 171 - 180
- Fabrizi E., M. R. Ferrante, S. Pacei (2008), *Measuring Sub-National Income Poverty by using a Small Area Multivariate approach*, «**REVIEW OF INCOME AND WEALTH**», 54, 4, pp. 597 - 615
- Calia P., M.R. Ferrante (2008), *A multivariate framework to explore firms' internationalization patterns: the role of individual heterogeneity*, «**STATISTICA**», anno LXVIII n.1, pp. 31-55.
- Fabrizi E., M. R. Ferrante, S. Pacei (2007), *Small Area Estimation of Average Household Income based on Unit Level Models for Panel Data*, «**SURVEY METHODOLOGY**», 33, 2, pp. 187-198
- Fabrizi E., M.R. Ferrante, S. Pacei (2007), *Comparing alternative distributional assumptions in mixed models used for small area estimation of income parameter*, «**STATISTICS IN TRANSITION**», 8, 3, pp. 423 - 439
- Fabrizi E., M. Ferrante, S. Pacei (2005), *Estimation of poverty indicators at sub-national level using multivariate small area models*, «**STATISTICS IN TRANSITION**», 7, 3, pp. 587-608.
- Ferrante M.R., S. Pacei (2004), *Small Area Estimation for Longitudinal Surveys*, «**STATISTICAL METHODS & APPLICATIONS**», 13, pp. 327-340
- Ferrante M.R., C. Filippucci (1997), Individual Diaries and Expense Documents in the Italian Consumer Expenditure Survey, «**JOURNAL OF OFFICIAL STATISTICS**», 13, 2, pp. 113-121.
- Ferrante M.R., Ferreri C. (1997), *A Bootstrap-type Procedure for an Underdispersion Analysis*, «**STATISTICA**», 2, pp. 199-210, 1997.
- Ferrante M.R., Ferreri C. (1996), *Pseudo-jackknife estimators for a hyperbinomial process*, «**STATISTICA**», 2, pp. 175-187, 1996.
- Ferrante M.R. (1996), *Dealing with Non-ignorable Attrition: a Review*, «**STATISTICA APPLICATA**», 8, 4, pp. 661-669.

## OTHER PUBLICATIONS

- Ceccarelli C., E. Fabrizi, M.R. Ferrante, S. Pacei ” (2008), *Estimation of Poverty Rates for the Italian Population classified by Household Type and Administrative Region*, «**RIVISTA DI STATISTICA UFFICIALE**», 1, pp. 59 – 73.
- Fabrizi E., M.R. Ferrante, S. Pacei (2007), *A comparison of Adjusted Bayes Estimators of an Ensemble of Small Area Parameters*, BERGAMO, DMSIA, Università di Bergamo, pp. 1-22 (Serie Ricerche).
- Ferrante M.R., C. Trivisano (2006), *Estimating firms' labour demand forecasts using small area models for count data*, in: Mutamenti della geografia economica italiana, MILANO, FRANCO ANGELI, 2006, pp. 241-260
- Ferrante M. R. (2006), *La domanda di lavoro prevista dalle imprese medio-grandi nei distretti industriali dell'Emilia Romagna e della Toscana*, «**SVILUPPO LOCALE**», 28, XII, pp. 67-92.
- Fabrizi E., M. Ferrante, S. Pacei (2005), *La stima per piccole aree del reddito equivalente medio tramite modelli misti: un confronto tra ipotesi distributive alternative*, in: Metodi statistici per l'integrazione di dati da fonti diverse, MILANO, FRANCO ANGELI, pp. 79 - 102
- Fabrizi E., M.R. Ferrante, C. Filippucci, S. Pacei (2004), *La distribuzione del reddito delle famiglie in Emilia-Romagna*, in: Temi di analisi statistico economica regionale, MILANO, Franco Angeli, pp. 111 - 151

## PAPER PRESENTATIONS AND INVITED DISCUSSIONS (since 2004)

- Ferrante M.R., Pacei S. (2019), Small area estimation of entropy inequality measures, 6th ITAlian Conference on Survey Methodology – ITACOSM 2019, Florence, 5-7 June 2019, Specialized Invited Session.
- Ferrante M.R., Pacei S. (2018), Small area estimation of inequality measures under alternative distribution models, 11th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2018), Pisa, Italy, 14-16 December 2018, Organized Invited Session.
- Ferrante M.R., C. Trivisano, E. Fabrizi (2017), *Small area estimation of the relative median poverty gap*, Small Area Estimation Conference, Paris, July 10–13, Invited Session.
- Ferrante M.R., C. Trivisano, E. Fabrizi (2016), *Small area estimation of the relative median poverty gap*, Conference of European Statistics Stakeholders, Budapest, 20–21 October 2016.
- Ferrante M.R., C. Trivisano, E. Fabrizi (2015), *Bayesian small area estimation methods for business survey statistics*, in: Proceedings of the 60th World Statistics Congress of the International Statistical Institute, Invited Session, ISI2015, 2016, pp. 86 - 91, Rio De Janeiro, Brazil, 26–31 July 2015.
- Ferrante M.R., M. Freo, *New Challenges in Detecting Learning by Exporting Effects on Firms' Productivity Distribution* (2014), Conference of European Statistics Stakeholders, November 24-25, 2014 - Rome (Italy), Sapienza University Book of Abstracts, p. 150.
- Fabrizi E., M. R. Ferrante, C. Trivisano, *Estimating Equivalised Income Inequality within Small Areas*, Conference of European Statistics Stakeholders November 24-25, 2014 - Rome (Italy), Sapienza University, Book of Abstracts, p. 132.
- Ferrante M.R., S. Pacei (2014), *Improving business statistics for small domains*, Relazione Invitata, Conference of European Statistics Stakeholders November 24-25, 2014 - Rome (Italy), Sapienza University, Book of Abstracts, p. 30.
- Fabrizi E., M. R. Ferrante, C. Trivisano (2014), *Hierarchical Beta Regression Models for the Estimation of Poverty and Inequality Parameters in Small Areas*, SAE 2014 Poland, Poznan, 3–5 September 2014, Book of Abstracts, pp. 35-36.
- Fabrizi E., M. R. Ferrante, C. Trivisano (2014), *Estimation of value added for firms cross-classified by region, industry and size using repeated survey data*, SAE 2014 Poland, Poznan, 3–5 September 2014, Book of Abstracts, pp. 34-35.
- Fabrizi E., M. R. Ferrante, C. Trivisano (2013), *Small area estimation of labour productivity for the Italian small and medium enterprises cross-classified by region, industry and size*, 53th Congress of the European Regional Science Association International, Palermo, 08/30/2013.
- Fabrizi E., M. R. Ferrante, C. Trivisano (2013), *Joint estimation of poverty and inequality parameters in small areas*, 9th Scientific meeting of CLAssification and Data Analysis Group, September 18-20, 2013, University of Modena and Reggio Emilia. In Book of abstract, Eds.: T. Minerva, I. Morlini, F. Palumbo, CLEUP, ISBN: 9788867871179, pp. 182-186.

- Ferrante M.R., S. Pacei (2013), *Small domain estimation of business indicators using multivariate skew normal models*, 1st Southern European Conference on Survey Methodology (SESM), 12-14 December 2013, University of Pompeu Fabra, Barcelona (Spain).
- Fabrizi E., M. R. Ferrante, C. Trivisano (2013), *Joint estimation of poverty and inequality parameters in small areas*, 1st Southern European Conference on Survey Methodology (SESM), 12-14 December 2013, University of Pompeu Fabra, Barcelona (Spain).
- Ferrante M.R., S. Pacei (2013), *Small domain estimation of business parameters using skew-normal models*, Italian Conference on Survey Methodology – ITACOSM, Milan 26-27-28 June 2013. Book of Abstracts, Eds. F. Nicolussi e S. Mecatti, Libreriauniversitaria.it Edizioni, ISBN:978-88-6292-390-3, pp. 21-22.
- Ferrante M. R. , M. Freo, A. Viviani, (2012) *The Post-Entry Effect of Exporting on Productivity: Inference on The Counterfactual Distribution*. In: Proceedings of the 46th Scientific Meeting of the Italian Statistical Society. Sapienza University, Rome, June 20-22, 2012, Padova, CLEUP, ISBN: 978-88-6129-882-8, p. 1-4.
- Ferrante M.R., Freo M. (2011), Total factor productivity gap between internationalized and domestic firms: net premium or heterogeneity effect? International Statistical Institute (ISI) conference, August 2011, DUBLIN, IRELAND. <http://isi2011.congressplanner.eu/>
- Fabrizi E., Ferrante M.R., Pacei S. (2011), Poverty and social transfers in Italy: an analysis based on EU-SILC data, Fourth meeting of the Society for the Study of Economic Inequality (ECINEQ), July 18-20, 2011, CATANIA, ITALY. [http://www.ecineq.org/ecineq\\_ct/general.htm](http://www.ecineq.org/ecineq_ct/general.htm)
- Ferrante M.R., Freo M. (2010). Adjusting the Internationalization Productivity Premium for Firms Heterogeneity by using the Quantile Regression Decomposition. In: SIS 2010. Conference Program. University of Padua, Padua, Italy., June 29, 2011 – July 1, 2011, p. 1-8, ISBN: 978-88-6129-566-7
- Calia P., Ferrante M.R. (2010), How do firms combine different internationalisation modes? A multivariate probit approach, ETSG 2010, Twelfth Annual Conference of the European Trade Study Group, University of Lausanne, 9-11 September 2010, LAUSANNE, SWITZERLAND. <http://www.etsg.org/ETSG2010/ETSG2010Programme.html>
- Ferrante M.R., Freo M. (2010), Measuring the “net” productivity premium of internationalized firms: a quantile regression decomposition approach, ETSG 2010, Twelfth Annual Conference of the European Trade Study Group, University of Lausanne, 9-11 September 2010, LAUSANNE, SWITZERLAND. <http://www.etsg.org/ETSG2010/ETSG2010Programme.html>
- Ferrante M.R., Freo M. (2010), Total factor productivity gap between internationalized and domestic firms: net premium or heterogeneity effect? European Economic Association (EEA) 25th Annual Meeting, 23 - 26 August 2010, GLASGOW, SCOTLAND
- Fabrizi E., Ferrante M.R., Pacei S., Trivisano C. (2008), Small domain estimation of poverty rates based on EU survey on income and living conditions, SAE2009 Conference on Small Area Estimation, Challenges in Statistics Production for Domains and Small Areas, JUNE 29 – JULY 01, 2009, ELCHE, SPAIN. <http://cio.umh.es/sae2009/AbstractList.asp>
- Fabrizi E., Ferrante M.R., Pacei S. (2008) Estimation of Poverty Rates for the Italian Population classified by Household Type and Administrative Region, General Conference of The International Association for Research in Income and Wealth, PORTOROZ, SLOVENIA, August 24-30, 2008; <http://www.iariw.org/c2008.php>

- Ferrante M. R. (2007), Multivariate Small Area Models for Count Data, SAE2007 Conference, Small Area Estimation IASS Satellite Meeting, specialized session, September 3-5, 2007, PISA, ITALY.
- Ferrante M. R., Padovani E. (2006), The impact of performance measurement on financial forecasting in Italian municipalities, EGPA 2006, European Group of Public Administration Annual Conference, 6-9 September 2006, MILAN, ITALY; <http://ssrn.com/abstract=957991>
- Ferrante M.R., M. Freo (2005), *Identifying peculiar states in local administration financial ratios*, in: Classification and Data analysis 2005 - Book of Short Papers, PARMA, Monte Università, 2005, pp. 337 - 340 (atti di: Meeting of the Classification and Data Analysis Group of the Italian Statistical Society, Parma - Italy, 6-8 June 2005)
- Ferrante M.R., C. Trivisano (2005), *The estimation of the forecasted labour demand using small area models for count data*, in: Abstracts, KUALA LUMPUR, s.n, 2005, pp. 177 (atti di: International Statistical Conference "Statistical in the Technological age", Kuala Lumpur - Malaysia, 27-31 Dicembre 2005)
- Ferrante, M. R., Freo, M. (2005), Identifying peculiar states in local administration financial ratios, Book of short papers presented at the Classification and Data Analysis Group (CLADAG) Conference 2005, 6-8 June 2005, pp. 337 – 340, PARMA, ITALY.
- Fabrizi E., Ferrante M.R., Pacei S. (2005), Estimation of poverty indicators at the sub-national level using univariate and multivariate small area models, SAE2005 Conference, Challenges in Statistics Production for Domains and Small Areas, University of Jyväskylä, 28-31 August 2005, JYVÄSKYLÄ, FINLAND. <http://www.stat.jyu.fi/sae2005/invited.htm>
- Fabrizi E., Ferrante M.R., Pacei S. (2005), Estimation of poverty indicators at sub-national level using multivariate small area models, Proceedings of the International Statistical Conference ISCM2005, "Statistical in the Technological age", 27-31 December 2005, KUALA LUMPUR, MALAYSIA (invited).
- Ferrante M. R., Trivisano C. (2005), Estimating firms' labour demand forecasts using small area models for count data (con C. Trivisano), Proceedings of the International Statistical Conference ISCM2005, "Statistical in the Technological age", 27-31 December 2005, KUALA LUMPUR, MALAYSIA (invited).
- Ferrante M.R., S. Pacei, E. Fabrizi (2004), *Estimation of Regional Income Indicators Using Small Area Methods for Panel Data*, in: Atti della XLII Riunione Scientifica della Società Italiana di Statistica Sessioni plenarie Sessioni specializzate, PADOVA, CLEUP, 2004, pp. 401 - 412 (atti di: XLII Riunione Scientifica della Società Italiana di Statistica, Bari, 9-11 giugno 2004)
- Fabrizi E. , M.R. Ferrante, S. Pacei (2004), *Small Area Estimation of Average Household Income Based on Panel Data*, in: 2004 Proceedings of the American Statistical Association, Statistical Computing Section, ALEXANDRIA, American Statistical Association, 2004, pp. 3464 - 3470 (atti di: 2004 Joint Statistical Meeting, Toronto, 8-12 agosto 2004)
- Fabrizi E., Ferrante M.R., Pacei S. (2004) ,Estimation of household income frequency distribution in small areas, IMS/ASA'S SRMS Joint Mini Meeting on Current Trends in Survey Sampling and Official Statistics, January 1-3, 2004, CALCUTTA, INDIA.
- Fabrizi E., Ferrante M.R., Pacei S. (2004), Small area estimation of average household income based on panel data, Joint Statistical Meetings (JSM) 8-12 August 2004, TORONTO, CANADA; <http://www.amstat.org/sections/srms/Proceedings/y2004f.html>.